An Analysis of Corporate Governance in Internal and External factors of Fiat Chrysler Automobile

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Abstract

This study will examine the how the impact of liquidity risk correlated with the company return on asset ratio (ROA) on Fiat Chrysler Automotive and will explained the impact using the corporate governance perspective. To support this study the usage of the internal data in the company and external data in macroeconomy will be analysed using two methods. The first method that using in this study is the descriptive data. The data that use in the descriptive data is obtained from the company 5 years annual report which is from 2014 to 2018 and calculates it using Excel. The data will be explained with the four risk which is credit risk, market risk, operational risk and followed by credit risk. The next method is the SPSS analysis. In SPSS analysis three models of data have been run to achieve all the results. The first model is company's internal data from FCA's 2014 – 2018 annual report, the second model is external data related to the macroeconomy in the United States which obtained from World Bank and last but not least the third model that combines both internal and external data.

Keyword: Corporate Governance, Risk, GDP, Inflation

INTRODUCTION

1.1 Company Background

Chrysler Corporation was founded in 1925 by Walter Chrysler from the remains of the Maxwell Motor Company. Beside of Chrysler brand FCA sells vehicles worldwide under the Dodge, Jeep and Ram nameplates. Furthermore, the subsidiary includes Mopar, its automotive parts and accessories division, and Street Racing Technology (SRC), its performance automobile division.

Fiat Chrysler Automobiles N.V is a public listed company under the law of Netherlands. FCA Fiat Chrysler Automobiles also well known as FCA. FCA is multinational company which is the combination of Fiat Societa per azioni which is company with shares and Fiat Investment Naamloze vennotschap, N.V. On 12 October 2014, the company has listed as a foreign private issuer under New York Stock Exchange and Mercato Telematico Azionario managed by Borsa Italiana. To become a part of NYSE the company should fulfilled the standard that list at the NYSE. Due to the reason of FCA is a multinasional company, FCA can practice their own country practice by following the standard of corporate governance standards.

1.2 Corporate Governance concept and theory

The concept, model, and the theory of corporate governance playing a main role in company's development. To identify and analyse the current status of corporate governance practices in FCA, 7 concept of sound corporate governance will be the benchmarking for this study.

The first concept of sound corporate governance is openness, honesty and fairness. In this part, it shows the ability of a company willingness to provide actual and trusted information to individual or groups. Beside of this, the board of directors must protect the shareholders interest in the organization, and should give confidence to the shareholders that their interests are being protect. And lastly, the board of directors should treat all stakeholders fairly and equitably by

consider the majority and the minority's needs. Based on the MAR Regulation, FCA shall disclose all the company financial or non-financial information to the public, without delay.

Secondly, the second concept is accountability. Corporate accountability refers to the obligation and responsibility to give an explanation or reason for the company's action and conduct. This concept provides for accountability of the company's Board of Directors to all shareholders in accordance with applicable law and provides guidance to the Board of Directors in making decision and monitoring the activities of the executive bodies. In FCA, the board of directors is always responsible to the company objective and strategy.

Beside of this, the third concept is independence. Independence refer to the procedures and structures are in place of independent and didn't affect by other issue, or can avoid conflicts of interest that could arise, such as the domination of a company by an all-powerful chairman or major shareholder. To maintained the balance in board, corporate governance committee should make sure the board didn't have a high authority until the force overlapping to the company's profit. To practice this principle, directors for FCA shall inform the board of directors about their job scope clearly and the importance of independence in a company.

Another key concept in corporate governance is responsibility. In this concept company board of director should exercise the practice based on own responsibilities. The board of directors are responsible to monitoring the management of the business and routine of the company. In doing so, it requires to act in the best interest of the company. In FCA, CEO is responsible to make the decisions and the daily management of the company by overseeing the operating performance.

The fourth core concept in corporate governance is fairness. Fairness playing an important role in corporate governance. The concept of fairness refers to the equal treatment to all the shareholder. To protect minority shareholder's benefits some companies, prefer to have a

shareholder agreement which can include more extensive and effective. In addition to shareholders, there should also be fairness in the treatment of all stakeholders including employees, communities and public officials. The fairer the entity appears to stakeholders, the more likely it is that it can survive the pressure of interested parties. FCA common shares are registered shares represented by an entry in the share register of FCA. The Board of Directors may determine that, for the purpose of trading and transfer of shares on a foreign stock exchange, share certificates shall be issued in such a form as shall comply with the requirements of such a foreign stock exchange.

The last concept in corporate governance is reputation. The key role of corporate governance has to be the improvement and protection of corporate reputation. A good company reputation can help the company attract more potential investor and employee or used to retain the senior employee in the company. But based on the article, FCA was the least favourite auto company for American public, based on the poll result. FCA has rated 65.8% at reputation perspective which indicates a "fair" performance. Other than this, FCA has been ranked as the worst automobile brand in the aspect of customer satisfaction, company performance, company reliability and safety. Another brand in FCA such as Jeep, Alfa Romeo, Dodge, and Ram—were also in the bottom ten, means that half of the company contribute in this worst performance. Therefore, a good reputation is very important to a company because the corporate reputation is a part of company's assets along with tangible property in balance sheet, workforce, social property, and environmental property.[12]

1.3 Research Objective

1.3.1 To determine the internal factors that influence the Fiat Chrysler Automobile Return On Assets

1.3.2 To determine the external factors that influence the Fiat Chrysler Automobile Return On Assets

1.3.3 To determine the external and internal factors that influence the Fiat Chrysler Automobile Return On Assets

1.4 Research Question

1.4.1 What is the significant internal factor is correlated with the Fiat Chrysler Automobile Return On Assets.

1.4.2 What is the significant external factor is correlated with the Fiat Chrysler Automobile Return On Assets.

1.4.3 What is the significant internal and external factor is correlated with the Fiat Chrysler Automobile Return On Assets.

Literature Review

2.1 Corporate governance

A corporate is an organization or a group of people that set up to governed an action in specific purposes. A corporation may have only one owner or shareholder, according to states' law. He or she can be both the sole shareholder and the sole director. In several states, that the person may also fill the officer positions such as president, treasurer and secretary as required. A few states required to establish two different people to fill the officer positions.

Governance refers, to all processes of governing, whether undertaken by a government, market, or network, whether over a family, tribe, formal or informal organizations or territory and whether through laws, norms, power, or language. Governance is the way that an organisation how they managed at the highest level and the system to use in managing.

Corporate governance is the relationship between the three major parties such as shareholders, agency and stakeholders. This three parties can be explain in three major theories which is agency theory that related to the agency and the principal, shareholder theory that always focus on maximise the shareholder's profit and stakeholder theory that focus on the other people that involve in the business such as customer. Beside of this, corporate governance is the framework of a company which provide a operating standards to company to prevent it facing failure of corporate governance in future.

A better financial performance always linked with a good corporate governance. To make improvements in corporate governance, it is risk related motivation for corporate governance that can be seen in the recent focus on improving internal control system and risk management practise. Risk management is the culture, processes and structures that are directed towards taking advantage of potential opportunities while managing potential adverse effects. The stakeholders and shareholders also have huge expectation regarding the proper disclosure of

risk management. A decisions can apparently only be taken after a through risk analysis. Companies need a business control, an accounting control and a tax control framework to survive and risk management has become important corporate governance issues. Risk management should be designed to prevent the risk harm to our business before it happends.

2.2 Risk

2.2.1 Market Risk

The first type of risk that may be faced by a business is market risk. Market risk related with loses of market investment.The changes will affect the trading activity for a business. A firm who exposes in a greater of financial risk will provide the firm more incentives to find a better way to control and minimize the risk. The uncertainty of the economic environment is reflected in various ways such as stock market and exchange rate. The director's independence and the dual roles of the CEO and chairman of the board reduce the extent and quality of market risk disclosures. To measure the market risk, the changes in the price change is used to draw a trend graph to see whether the trend is an up-flow or a down-flow.

Another approach is scenario analysis or "what if" analysis, in which we set out different scenarios and investigate what we stand to gain or lose under them. To carry out this, we select a set of scenarios or paths describing how relevant variables, stock prices, interest rate, exchange rates, etc. Scenario analysis is not easy to carry out. A lot of hinges on our ability to identify the "right" scenarios, and there are relatively few rules to guide us when selecting them.

The last approach is portfolio theory. Portfolio theory starts form the premise that investors choose between portfolios on the basis of their expected return, on the one hand, and the standard deviation or variance of their return, on the other. The standard deviation of the portfolio return can be regarded as a measure of the portfolio's risk. Other things being equal, an investor wants a portfolio whose return has a high expected value and a low standard

deviation. When a portfolio meets these conditions is efficient, and a rational investor will choose an efficient portfolio. A portfolio theory provides a useful framework for handling multiple risks taking account of how those risks interact with each other.

2.2.2 Credit Risk

The second type of risk is credit risk. Credit risk is the risk which come from the liabilities and debt issues in company. Credit risk also explain the relationship of period to pay back the debt and the amount of debt. This relationship is estimated using historical date and econometric technique. This usually refers to the risk that a lender may not receive the owed principal and interest, which results in an interruption of cash flows and increased costs for collection. In the perspective of corporate governance, a company shall reduce its credit risk as low as possible to attract shareholders and stockholders to invest in their business. When the equity of a company decreases, debt become the important source of financing corporate investment. While corporate governance mechanisms protect the interest of shareholders, creditors' position are secured by the fixed nature of debt payment, priority of claim for corporation's earnings and assets. But the excessive of debt will makes company face the bankruptcy risk and takeover risk.

2.2.3 Liquidity Risk

Next, liquidity risk defined as the risk of being unable to liquidate a position in a timely manner at a reasonable price. Theoretically, liquidity risk in this sense can be divided into the variability of execution cost which is the cost of immediacy and that of opportunity cost is the cost of waiting. To calculate liquidity risk, we can use the liquidity coverage ratio. A company that have a strong governed firm such as providing risk management in annual report are tend to provide more meaningful risk information to their investors that weakly governed firms. When

their investors have more risk information, they can avoid the loss and help the company and their own minimize a loss.

To determine the company liquidity risk level a graph that illustrate the quick ratio has been used to test the company ability to pay their debt.

2.2.4 Operational Risk

Last but not least, the fourth risk is operational risk. Operational risk identified as the value of change that causes loss to the company. Operational risk is becoming a major part of corporate governance of companies, especially in the financial services industry. A good corporate governance practice will be stated out the key risk area in company and review company's approach to managing risk and evaluate the process in place to monitor and control those risk.

To analyse the company operational risk, ratio of operating margin and operational ratio has been calculated to determine the company operating and sales.

To avoid operational risk a group of members should be elect to monitor the business. The group executive council were responsible for the day-to-day management of the company.

Methodology

3.0 Introduction

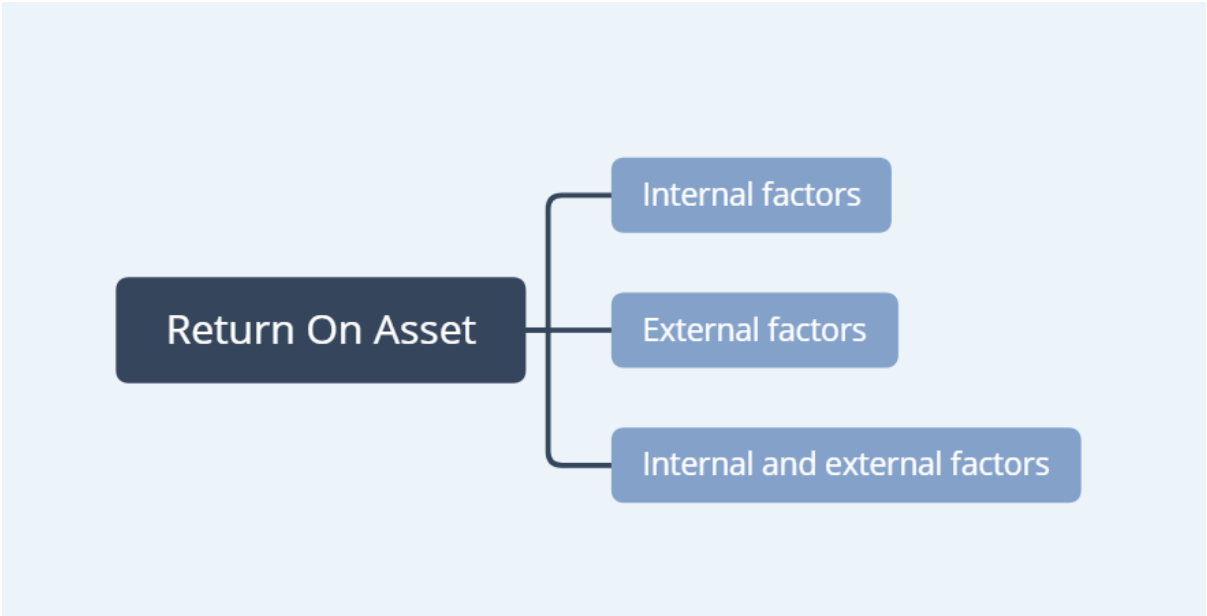
This part provides an outline of the research methodology used in this analyse and answer the research question which is the description of data collection process for the data analysis techniques used and limitations of the adopted research method.

3.1 Research method

In this assignment, I use mixed methods approach which is quantitative and qualitative methods. I use quantitative methods to measuring, categorizing, identifying and making generalizations for all of my data. To collect the company data, I use five years of company annual report which is from 2014 to 2018. Beside of company data, I also visit company website to get more extra information about the company. After collect all the respective data I use Microsoft Office Excel to organized the data and using IBM SPSS statistic to calculate and form three model for my data.

The second method that I use is the qualitative methods. I use this method to describe, interpret, to gain a deeper insight into my assignment. In this method, I choose case studies to study my company profile and literature review such as books, journal articles and theses on the particular topic in this assignment. To support all my data, I need extra information from the outsiders, therefore I use resources from Google Scholar and books from University Utara Malaysia's library. Next, I will also use the existing data to proceed my assignment. This information that I approach will show the central research question in this assignment.

The usage of quantitative research will help me confirm or test the hypothesis in this assignment while the qualitative research will help to understand the topic and question in this assignment.



Model	Dependent variable	Independent variable
Model 1	Return on asset	- Current ratio (CR) - Quick ratio (QR) - Average-collection period (ACP) - Debt to income (DTI) - Operational ratio (OR) - Operating margin (OM)
Model 2	Return on asset	- GDP - Inflation rate (IR) - Interest rate (InR) - Exchange rate (ER)
Model 3	Return on asset	- Current ratio - Quick ratio - Average-collection period - Debt to income - Operational ratio

		- Operating margin - GDP - Inflation rate - Exchange rate

Model 1: ROA= a + CR + QR + ACP + DTI + OR + OM

Model 2: ROA= a + GDP + IR + InR + ER

Model 3: ROA= a + CR + QR + ACP + DTI + OR + OM+ GDP + IR + InR + ER

Finding and Analysis

4.0 Introduction

In this part, the company performance will be analysis using descriptive analysis and SPSS analysis.

Descriptive analysis is using the graph to present a set of data by measuring their central tendency, measures of variability, measures of relationship between variables and effect size indicators. The descriptive data was calculated using Excel and the data are obtained from Fiat Chrysler Automobile's annual report from year 2014 to 2018. In descriptive data analysis, 7 ratios were the main ratio that using to perform the company situation and the company risk will be explained on the perspective on corporate governance. The seven ratios were return on asset, current ratio, average-collection period, debt to income, operational ratio and operating margin. And there is four risk will be explained based on the data which is market risk, credit risk, liquidity risk and operational risk.

For SPSS analysis, a linear statistical model has been used to analyse the internal data and the external data. The linear statistical model is used to response as a linear combination of independent and dependent variables and to test relationship between the variables by diagnostics on three model assumptions.

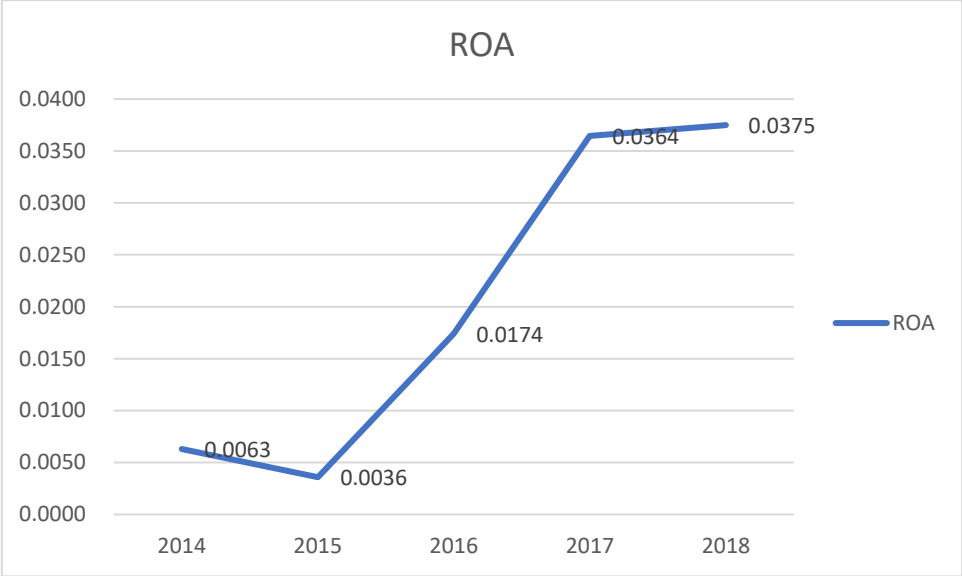
Descriptive Statistics

	Mean	Std. Deviation	N
ROA	.0202406749	.0161279211	5
CURRENT RATIO	.945780	.2636356	5
QUICK RATIO	.690980	.2234833	5
AVERAGE-COLLECTION PERIOD	8.122800	1.1458781	5
DEBT TO INCOME	5.494760	.7735077	5
OPERATIONAL RATIO	.957580	.0174779	5
OPERATING MARGIN	.050940	.0117012	5
GDP	2.394820	.5407699	5
Inflation	1.515020	.9033861	5
InterestRate	1.930740	.4016526	5
ExchangeRate	1.172000	.0928440	5

Table 1

By using the data analysis application SPSS the descriptive statistic has been run and get the result as show as above. In this descriptive data, it contains internal data which is return on assets, current ratio, quick ratio, average collection period, debt to income, operational ratio and operating margin. To run this part analysis, data was taken from the company annual report which is start from year 2014 to 2018. In the other hand, external data contains the data from macroeconomic which stands for GDP, inflation, interest rate and exchange rate in United States for 5 years starts from 2014 to 2018.

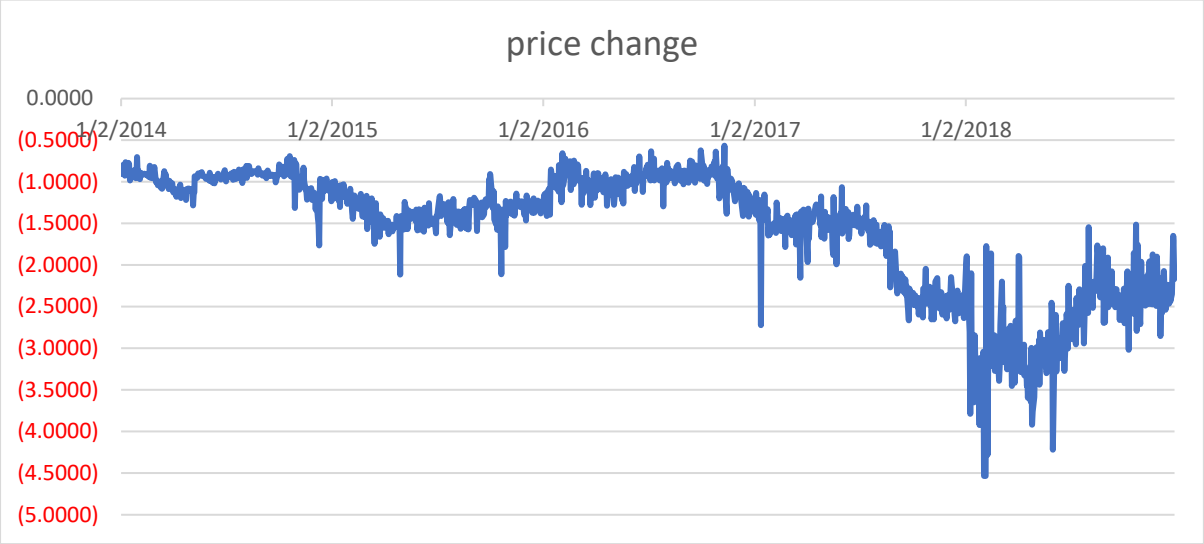
4.1 Company performance trend analysis



Graph 1

ROA stands for return on assets, the ROA ratio show how effective the company utilize their assets to increase their profitability. The bar chart 1 illustrates the changes of interest rate from the years 2014 to 2018. The vertical axis shows the rate and horizontal axis show represent the year. It can be seen that the rate increases steadily from year 2014 to 2016. In the year 2016, the rate of the interest rate reaches the pitch in the 5 years which is 2.3920. However, the rate fell slightly which is start from year 2017 to 2018. Although there are some ups and downs, it still shows a steady trend. In 2015, the ROA of FCA results the lowest rate compare to the others 4 years, this shows that the company having problem to utilize their assets to generate profit to the company. In this time period, FCA workers are seeking the answer to the problem on the new worker contract. This contract shows that 40,000 employees who over the four years contract will be takes steps to reduce the wage gap between the tier 2 which is entry-level employee and tier 1 which is senior employee. But the employee concern on FCA's ability to hire temporary part-time workers that start at a wage below tier 2 workers and any incentives will provided by FCA to the senior workers to take early retirement. Due to this concern, 65% of FCA workers voted to reject the contract but this rejection didn't consider by UAW president. Therefore, it causes the current year ROA decrease.

4.2 Market risk



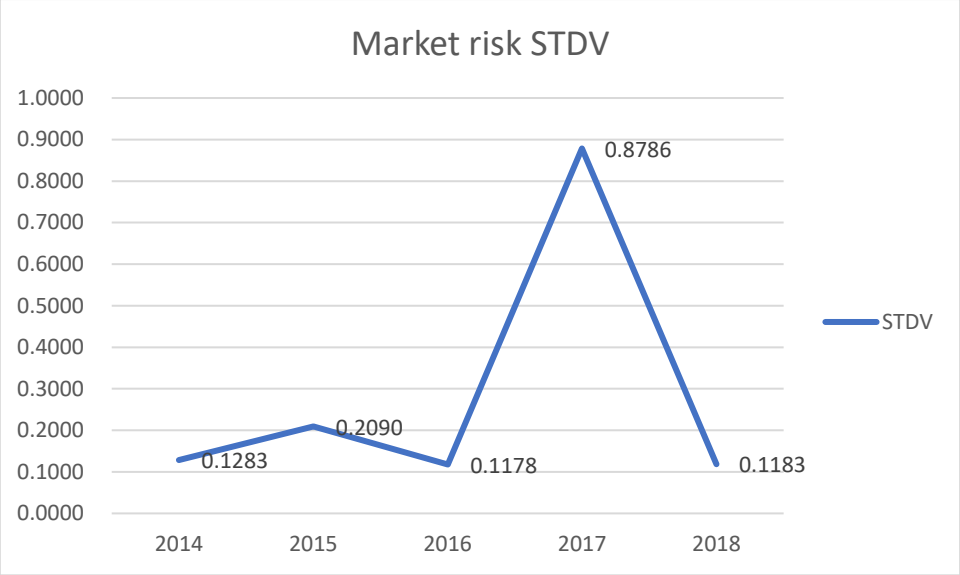
Graph 2

	2014	2015	2016	2017	2018
Mean	(1.5671)	(1.3657)	(1.2336)	(1.3962)	(2.0836)
STDV	0.1283	0.2090	0.1178	0.8786	0.1183
Maximum	(0.6925)	(1.0021)	(0.5660)	(1.3962)	(2.0000)
Minimum	(1.7649)	(1.2977)	(1.3169)	(2.6386)	(2.1673)

Table 2

The line graph above shows the relationship between the price change of the FCA stock in five respective years. The horizontal x axis represents independent data, the year from 2014 to 2018 while the vertical y axis represents the dependent data which is the price change. Strat form year 2015, the graph shows a steadily increase until year 2017. By referring to table 2 it shows that the standard deviation increases steadily flow.

m 0.2090 to 0.8786 which illustrate that the annual rate of return of the FCA stock grows from 0.2090 to 0.8786. In year 2017 it shows the highest standard deviation in the five years and give us the feedback about the FCA stock in the year having a greater variance between each price and the mean compare to the others four years. In overall data, it shows that FCA is a steady stock because it has a steady low standard deviation and did not have a high rate of market risk which means that the return of FCA has a above average return in market.

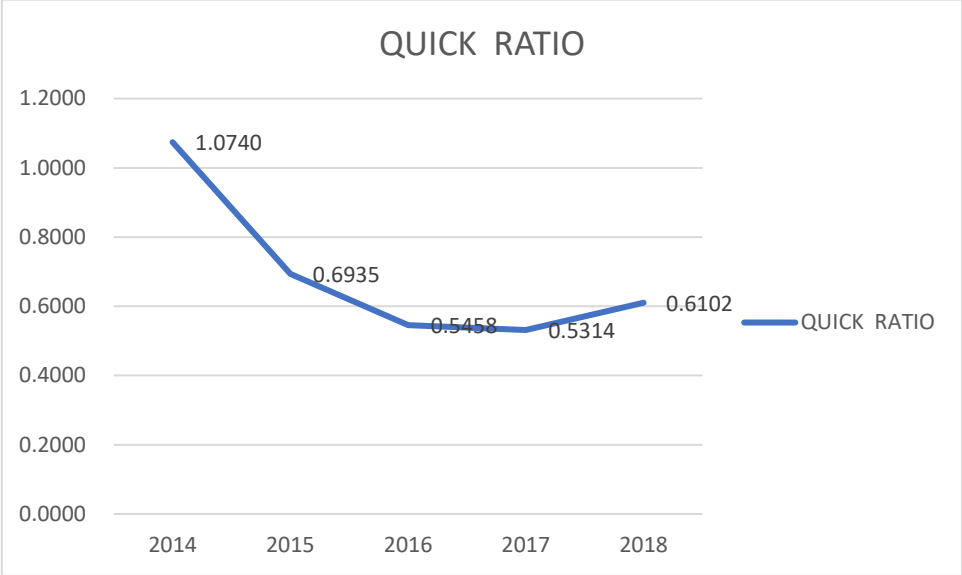


Graph 3

Graph above illustrate the price trend of FCA stock from year 2014 to 2018 by using the standard deviation. Standard deviation market risk is using to determine the assets prices from the historical price. Based on the graph the point hit the pitch on year 2017 which is the highest point compare to other year. The highest the point of standard deviation the higher risk the investment.

By comparing two graph it shows that there is a positive relation between the price change and the market risk. The changes in the stock price will move the standard deviation of the price and will affect the market risk.

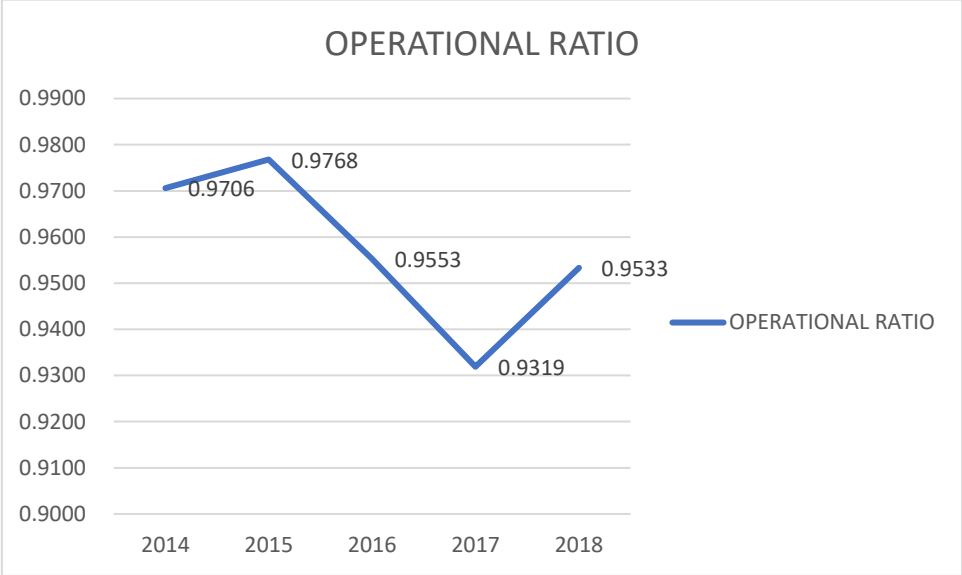
4.3 liquidity risk



Graph 4

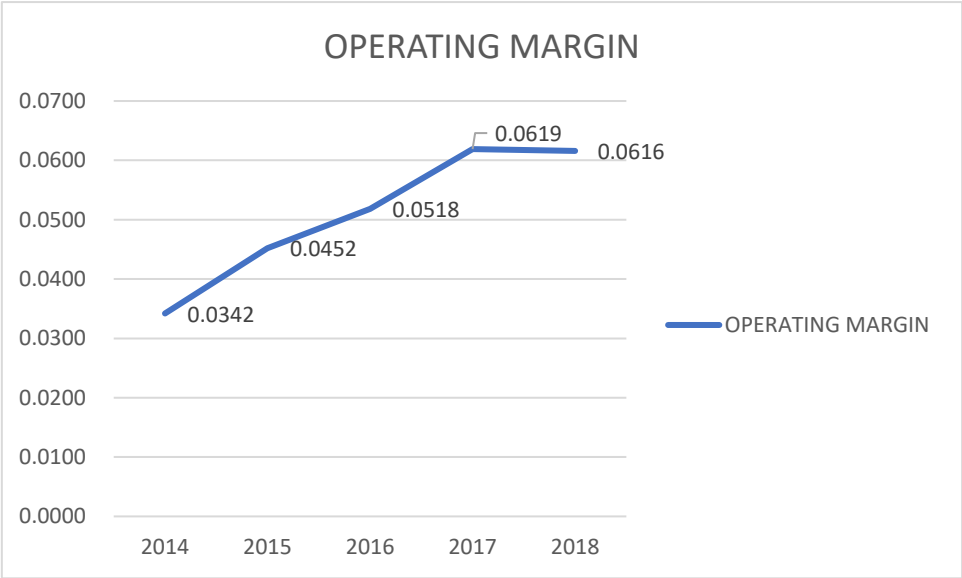
Quick ratio also knows as acid test ratio which test the company's ability to pay their debt using the limited asset especially current assets. Based on the graph above it shows that FCA quick ratio decrease year by year start from year 2014 (1.0740) to year 2017 (0.5314) and the trend rise in 2018 from 0.5314 (2017) to 0.6102 (2018). In year 2014, FCA with a quick ratio in 1.0740 means FCA current liabilities is almost equal with the current asset. But after year 2014, FCA quick asset decrease until it shows the ratio of 0.5 to 0.6. This shows that FCA quick asset is lower than current liabilities. Therefore, according to the graph above it shows that FCA easily to suffer in liquidity risk due to the low quick ratio. This is because when the company has a lower quick ratio it might have trouble on pay off their labilities by using the current assets. Beside of this a low quick ratio is a bad sign for investor too invest on the company because the creditors hard to know the payback period or need to waiting for a long period for pay back.

4.4 Operational risk



Graph 5

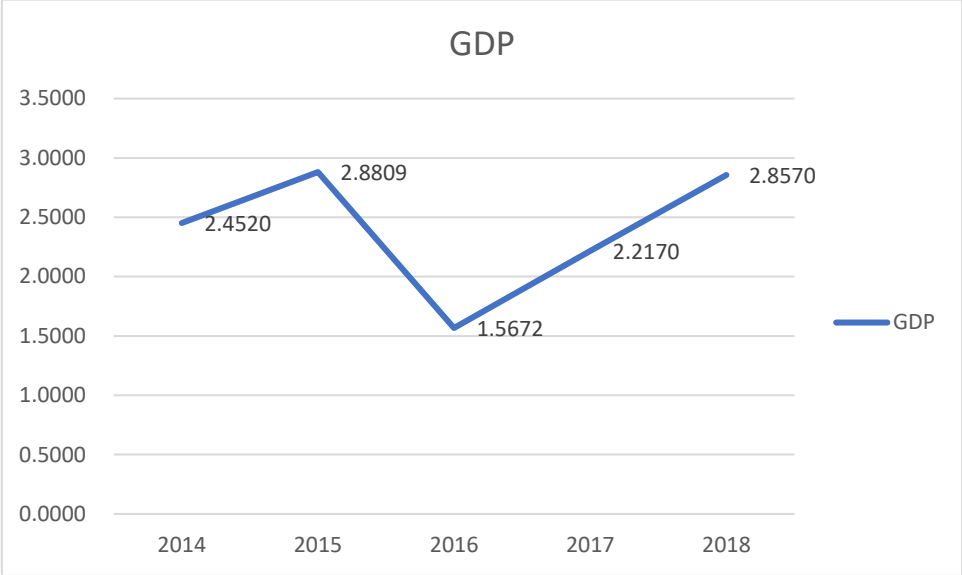
The graph 5 above shows the operating ratio of FCA. Based on the graph above we can clearly see that there is a dramatically drop from year 2015 (0.9768) to 2017 (0.9319) and the ratio rise to 0.9533 in year 2018. The operating ratio shows the relationship between the company's sales and the operating expenses. This ratio can use to determine how efficiency the company maximise the company profit by using the lower operating expenses. The graph 5 illustrated that FCA as a positive sign in operating from year 2015 to 2017 because the company are using the lower operating expenses and generate a high profit compare to the other year. in overall, FCA having a fluctuated operating ratio because the unstable of company's efficient.



Graph 6

The graph above shows the relationship between earnings before interest and taxes and the revenue. This relationship can show how a company generate profit after pay off all the taxes using the revenue. FCA company shows a steady increase in operating margin from year 2014 (0.0342) to 2017 (0.0619) and it having a slightly decrease in year 2018 (0.0616). since the company have a high and increase operating margin it shows that FCA have a effective operation.

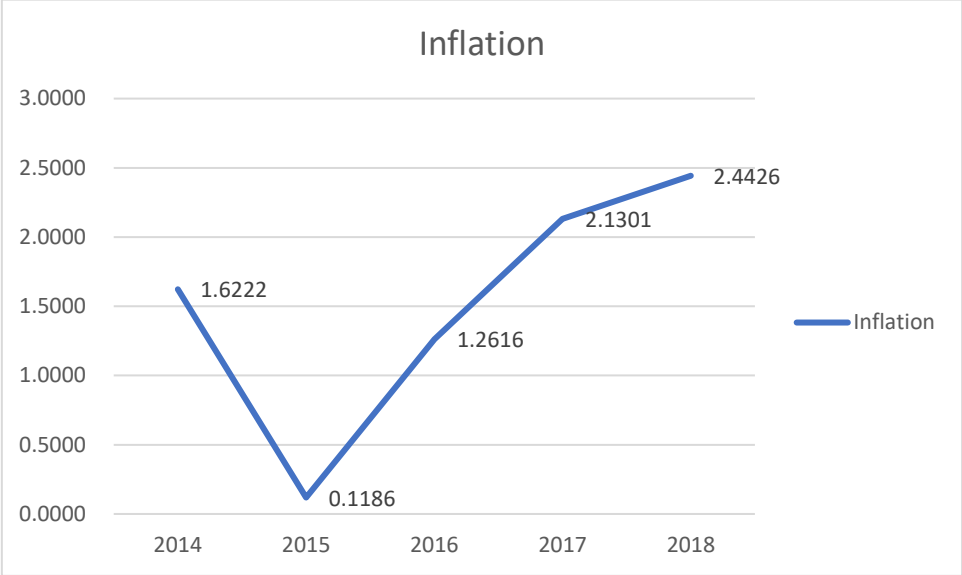
4.5 Gross domestic product



Graph 7

The gross domestic product (GDP) graph shows the market value and the final goods that produced by different sector in a year. The graph above shows the pass five years which is from 2014 to 2018 GDP growth rate in United States. The graph above shows that the US's GDP rate is fluctuated in this five year. In 2015, US GDP rate reach the highest point which is 2.8809 but the rate falls dramatically from 2.8809 to 1.5672. But after this year, the rate rises steadily from 1.5672 in 2016 to 2.2170 in 2017 follow by 2.8570 in 2018. The GDP rate increase shows that the goods that produced by the domestic and export to the foreigners exceeds the value of import goods that consumer buy in US, and this situation will show us the surplus of economy in US.

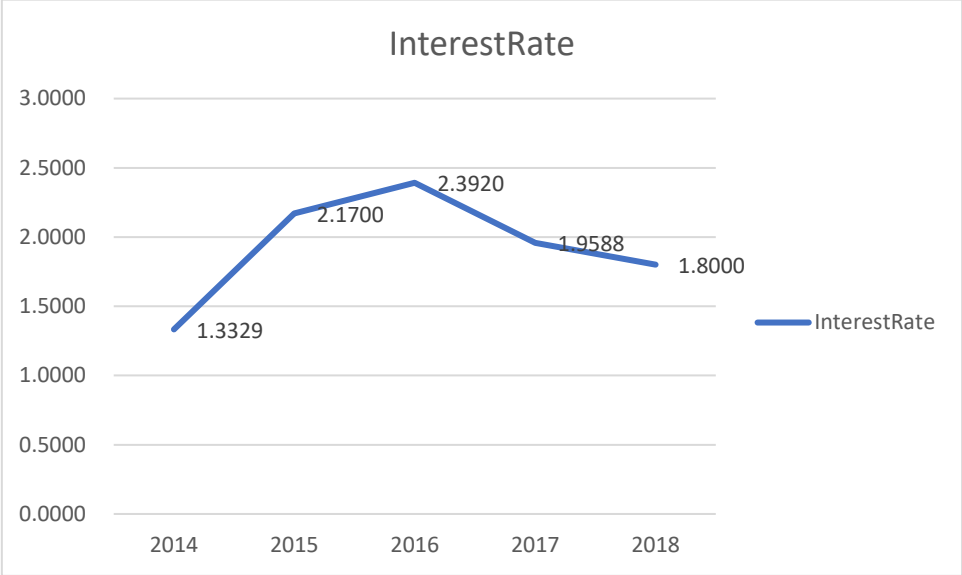
4.6 Inflation rate



Graph 8

Inflation can define as the rate of growth of a goods or service in an economy in specific period. In year 2014, United States show the rate of inflation of 1.6222 the rate drops sharply to 0.1186 in 2011. The rate increases dramatically to 1.2616 in 2016, 2.1301 in 2017 and 2.4426 in 2018. The high accelerating from 2015 can represent the hyperinflation in between this five year.

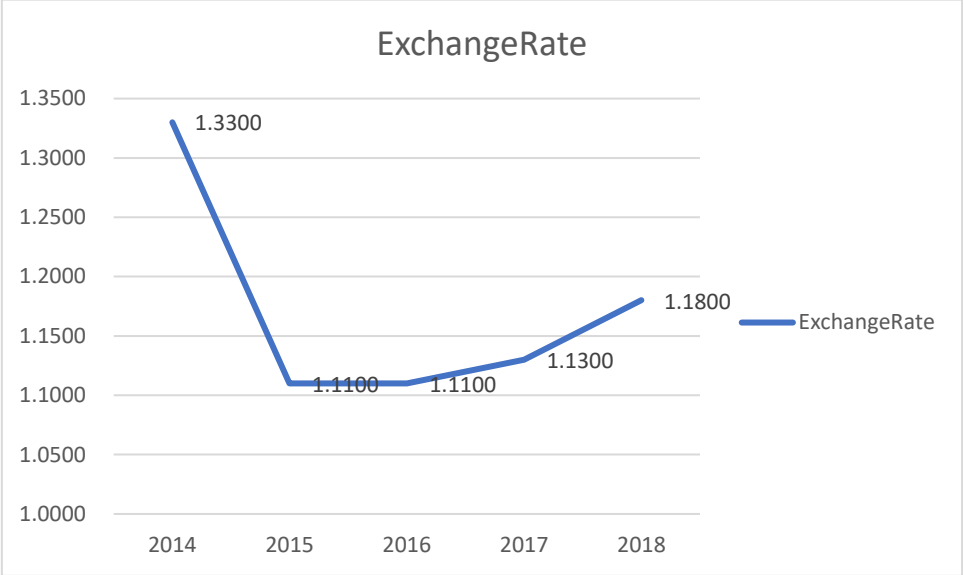
4.7 Interest rate



Graph 9

The graph above illustrate the interest rate of United States in five years which is from year 2014 to 2015. Based on the graph above, the rate rose from 1.3329 in 2014 to 2.17 in 2015 until it reaches the highest point in year 2016 which is 2.3920. in 2017 the rate drop to 1.9588 and end with 1.8 in year 2018.

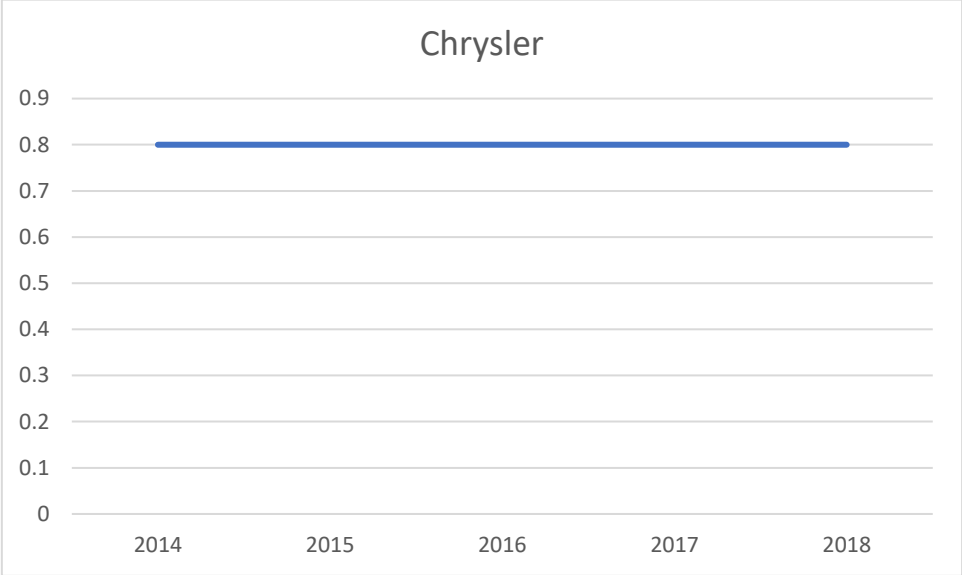
4.8 Exchange rate



Graph 10

The graph above show the exchange rate of USD in between year 2014 to 2018. In 2014, the exchange rate is 1.3300 but the rate significantly declines to 1.11 in 2015 and maintain it until 2016. In 2017, the rate climbs up a bit to 1.13 and rise until 1.18 in year 2018.

4.9 corporate governance index (CGI)



Graph 11

the graph above show the corporate governance index of Fiat Chrysler Automobile in five years. This corporate governance index are evaluate based on the five principal which is accountability, transparency, fairness, independence and sustainability. For FCA, the company have audit committee to make sure the information from the company is transparency. In the perspective of fairness, FCA involve women in the board to maintain the board balance, and FCA always do so corporate social responsibility such as giving educational cash reward to school and this will help FCA increase the company's sustainability.

5.0 SPSS analysis

In this part the data obtained from the external and internal will be listed out and run using data analysis application SPSS to find out which data is significant to the company until it affects the company Return on Assets (ROA).

5.1 correlations of internal and external data for FCA company

Correlations

		ROA	CURRENT RATIO	QUICK RATIO	AVERAGE-COLLECTION PERIOD	DEBT TO INCOME	OPERATIONAL RATIO	OPERATING MARGIN	GDP	Inflation	InterestRate	ExchangeRate
Pearson Correlation	ROA	1.000	-.631	-.621	-.523	-.914	-.874	.912	-.041	.831	.048	-.257
	CURRENT RATIO	-.631	1.000	.996	.416	.835	.602	-.889	.196	-.121	-.787	.908
	QUICK RATIO	-.621	.996	1.000	.371	.813	.628	-.876	.278	-.122	-.806	.909
	AVERAGE-COLLECTION PERIOD	-.523	.416	.371	1.000	.707	.086	-.536	-.287	-.414	-.111	.169
	DEBT TO INCOME	-.914	.835	.813	.707	1.000	.710	-.975	-.021	-.587	-.353	.539
	OPERATIONAL RATIO	-.874	.602	.628	.086	.710	1.000	-.804	.385	-.707	-.157	.316
	OPERATING MARGIN	.912	-.889	-.876	-.536	-.975	-.804	1.000	-.059	.535	.423	-.625
	GDP	-.041	.196	.278	-.287	-.021	.385	-.059	1.000	-.073	-.420	.206
	Inflation	.831	-.121	-.122	-.414	-.587	-.707	.535	-.073	1.000	-.427	.300
	InterestRate	.048	-.787	-.806	-.111	-.353	-.157	.423	-.420	-.427	1.000	-.939
	ExchangeRate	-.257	.908	.909	.169	.539	.316	-.625	.206	.300	-.939	1.000
Sig. (1-tailed)	ROA	.	.127	.132	.183	.015	.026	.016	.474	.040	.470	.338
	CURRENT RATIO	.127	.	.000	.243	.039	.141	.022	.376	.423	.057	.017
	QUICK RATIO	.132	.000	.	.269	.047	.128	.026	.325	.422	.050	.016
	AVERAGE-COLLECTION PERIOD	.183	.243	.269	.	.091	.445	.176	.320	.244	.430	.393
	DEBT TO INCOME	.015	.039	.047	.091	.	.090	.002	.487	.149	.280	.174
	OPERATIONAL RATIO	.026	.141	.128	.445	.090	.	.051	.261	.091	.401	.302
	OPERATING MARGIN	.016	.022	.026	.176	.002	.051	.	.463	.176	.239	.130
	GDP	.474	.376	.325	.320	.487	.261	.463	.	.453	.241	.370
	Inflation	.040	.423	.422	.244	.149	.091	.176	.453	.	.237	.312
	InterestRate	.470	.057	.050	.430	.280	.401	.239	.241	.237	.	.009
	ExchangeRate	.338	.017	.016	.393	.174	.302	.130	.370	.312	.009	.
N	ROA	5	5	5	5	5	5	5	5	5	5	5
	CURRENT RATIO	5	5	5	5	5	5	5	5	5	5	5
	QUICK RATIO	5	5	5	5	5	5	5	5	5	5	5
	AVERAGE-COLLECTION PERIOD	5	5	5	5	5	5	5	5	5	5	5
	DEBT TO INCOME	5	5	5	5	5	5	5	5	5	5	5
	OPERATIONAL RATIO	5	5	5	5	5	5	5	5	5	5	5
	OPERATING MARGIN	5	5	5	5	5	5	5	5	5	5	5
	GDP	5	5	5	5	5	5	5	5	5	5	5
	Inflation	5	5	5	5	5	5	5	5	5	5	5
	InterestRate	5	5	5	5	5	5	5	5	5	5	5
	ExchangeRate	5	5	5	5	5	5	5	5	5	5	5

Table 3

The correlation table above shows how the variable in between internal and external factors related to each other or the degree of association between these two data. Based on this analysis, we can measure the correlation between the data by the correlation coefficient. This table will be explained in three type of correlation which is in the perspective of positive or negative correlation, linear or non-linear correlation and simple, partial and multiple correlations. In this table, the independent data is the company's ROA and the dependent data is the company internal and external data.

Based on the table show as above the operating margin, inflation rate and interest rate are positively correlation because the coefficient is greater than 0 which means that when this variable move in positively direction with ROA. But current ratio, quick ratio, average collection period, debt to income, operational ratio, GDP and exchange rate shows the negative correlation that when one variable moves in a positive direction, the second variable will move in negative direction. The resulted that the operating margin is the most perfectly positive correlation and the debt to income is the most negatively correlation.

In these results, the correlation between the operating margin and the ROA is about 0.912 which indicates that a large positive relationship between the variables. The correlation between the debt to income and ROA is -0.912 which indicates that when debt to income decrease, the ROA increase.

Based on the data result, the p-values for the correlation between the inflation (0.04) data are less than the significant level of 0.05 which indicates that the correlation coefficients are significant. The debt to income (0.015) and operating margin (0.016) are both less than the significant level of 0.10. Therefore, this data can conclude that these 3 data are significant to the ROA in FCA.

5.2 Return On Asset on Internal Factors

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.914[a]	.835	.779	.0075744301	2.363

a. Predictors: (Constant), DEBT TO INCOME

b. Dependent Variable: ROA

Table 4

The table above show the modal summary of the internal data in FCA. This modal summary reports the strength of the relationship between the modal and the ROA. Based on the table above it shows that 83.5% of the variation in the independent variables is explained by the model. This result support by the previous study by Azhagaiah & Gavoury, 2011. A firms or company can use debt or equity to finance their assets. One of the best solutions to finance the firms is using the suitable mix of debt and equity.

5.3 ANOVA on Internal Factors

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.001	1	.001	15.135	.030[b]
	Residual	.000	3	.000		
	Total	.001	4			

a. Dependent Variable: ROA

b. Predictors: (Constant), DEBT TO INCOME

Table 5

The ANOVA table above show the statistically significant difference between the group means. Based on the table above it shows the significance value is 0.030 which is below 0.05 significant value and it is statistically significant difference in the mean ROA to the debt to income. Hasan et al. (2014) stated that the ratio of short-term debt to the total assets had a negative impact on ROA.

5.4 Return On Assets on External Factors

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	1.000[a]	1.000	.	.	.161

a. Predictors: (Constant), ExchangeRate, GDP, Inflation, InterestRate

b. Dependent Variable: ROA

Table 6

The table above shows the model summary of the company FCA in external factors. Based on the table above, it shows that the relationship between the external factors and the ROA. Since the data shows the value of 100%, it means that all movement of the ROA are completely explained by movements in the external variables. Vong and Chan (2009) Linear model shows strong influence of inflation on ROA, GDP and interest rate show no effect.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.998[a]	.996	.985	.0019570463	3.140

a. Predictors: (Constant), ExchangeRate, GDP, Inflation

b. Dependent Variable: ROA

Table 7

Due to the high value of R-square, interest rate has been removed and analysis again using three external factors which is exchange rate and inflation rate. After removing the interest rate, it shows that 99.6% variance in ROA is explained by the model.

5.5 ANOVA on All External Factors

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.001	4	.000	.	.[b]
	Residual	.000	0	.		
	Total	.001	4			

a. Dependent Variable: ROA

b. Predictors: (Constant), ExchangeRate, GDP, Inflation, InterestRate

Table 8

Based on the table above, the external factors are not significant for dependent variable, ROA because the significant level is less than 0.1.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.001	3	.000	90.218	.077[b]
	Residual	.000	1	.000		
	Total	.001	4			

a. Dependent Variable: ROA

b. Predictors: (Constant), ExchangeRate, GDP, Inflation

Table 9

Due to the lower significant value in previous table, new analysis of ANOVA has been re-analysed by removing the interest rate. After removing the interest rate, the significance value is 0.077 which is below 0.1 and therefore, there is a statistically significant difference in the data.

5.6 Return On Assets on Internal and External factors

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.914[a]	.835	.779	.0075744301	2.363

a. Predictors: (Constant), DEBT TO INCOME

b. Dependent Variable: ROA

Table 10

Model summary table above reports the relationship of internal and external data between the model and the ROA. The degree of correlation is 91.4% and the coefficient of determination of the data is 83.5% in the ROA variable. In this data, 83.5% can be explained by debt to income.

5.7 ANOVA on Internal and External Factors

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.001	1	.001	15.135	.030[b]
	Residual	.000	3	.000		
	Total	.001	4			

a. Dependent Variable: ROA

b. Predictors: (Constant), DEBT TO INCOME

Table 11

The ANOVA table above indicates the regression model predicts the ROA significantly well with the debt to income. The table above shows that the significant value is 0.03 which is less than significant level of and this indicates that the regression model is statistically significantly and fit with the data.

5.8 Coefficient of Return On Asset on Internal and External Factors

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	.125	.027		4.606	.019	.039	.211		
	DEBT TO INCOME	-.019	.005	-.914	-3.890	.030	-.035	-.003	1.000	1.000

a. Dependent Variable: ROA

Table 12

The coefficient table at above show the data to predict the ROA from the internal and external variables to determine whether the internal and external factors contributes statistically significantly to the model. The coefficients for debt to income (-0.019) is statistically significantly different from 0 using alpha of 0.05 because the p-value is 0.03.

Discussion and conclusion

6.1 Limitation

This paper is for educational purpose and analyse using the limited data. In this paper, five years of data (2014-2018) from external and internal data has been used.

6.2 Conclusion

The purpose paper is use to determine the internal and external factors that affect the return on asset ratio in Fiat Chrysler Automobile. The result show that the debt to income is strongly negative related with return on asset while the operating margin is strongly positive correlated with the return on assets.

6.3 Discussion and Suggestion

Based on the data above it clearly show that to increase the company ROA, FCA should decrease the debt to income ratio because both of these variables are negative correlated. To decrease the debt to equity ratio FCA should strength the company's inventory management and restructuring debt in the company. In the perspective of strengthen company's inventory management, FCA should avoid keep a high level of inventory for a long period and for the debt restructuring, FCA should avoid high interest loans or refinance current debt in company. Beside of this, the operating margin is positively correlated with the ROA. To increase the operating margin, FCA should always evaluate company's inventory to prevent excessive of inventory that will affect the company asset's liquidity, other than inventory FCA should lower the operational cost while simultaneously increase in revenue.

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Reference

1. https://usjunkyardsnearme.com/car-resources/chrysler-history/
2. https://www.autonews.com/article/20140121/OEM/140129980/fiat-completes-chrysler-acquisition-in-4-35-billion-deal#axzz2r8024er1
3. https://www.reuters.com/article/us-fiatchrysler-ferrari-divestiture/fiat-chrysler-to-spin-off-ferrari-issue-2-5-billion-convertible-bond-idUSKBN0II1DB20141029
4. Tricker, B (2015). Corporate governance: Principles, Policies and Practices. 3rd ed. Oxford: Oxford University Press.
5. Committee on the Financial Aspects of Corporate Governance (1992): The Financial Aspects Of Corporate Governance (The Cadbury Report)
6. https://www.charterededucation.com/general/7-key-corporate-governance-concepts-for-acca-p1/
7. https://www.pearse-trust.ie/blog/bid/108866/the-core-principles-of-good-corporate-governance
8. https://www.interrao.ru/en/investors/corporate-governance/basic-principles/
9. https://corpgov.law.harvard.edu/2016/09/08/principles-of-corporate-governance/
10. Wiederman, K. P., and H. Buxel. 2005. Corporate reputation management in Germany: Results of an empirical study. Corporate Reputation Review 8 (2): 145–163.
11. https://finance.yahoo.com/news/car-brand-worst-reputation-america-211149599.html

12. Argenti, P. A., and B. Druckenmiller. 2004. Reputation and the control brand. Corporate Reputation Review 6 (4): 368–374.

13. PK Fontana (2010). Choosing the right legal form of business. Atlantic Publishing Group, Inc.

14. Mark Bevir (2012). Governance A very Short Introduction. Oxford University Press.

15. Jill Solomon (2007). Corporate Governance and Accountability. Third edition. John Wiley & Sons, Ltd

16. Justice Owen in the HIH Royal Commission, The Failure of HIH Insurance Volume 1: A Corporate Collapse and Its Lessons, Commonwealth of Australia, April 2003 at page xxxiii and Justice Owen, Corporate Governance – Level upon Layer, Speech to the 13th Commonwealth Law Conference 2003, Melbourne 13-17 April 2003 at page 2.

17. ASX Corporate Governance Council (2007). Corporate Governance Principles and Recommendations. Second Edition. ASX Corporate Governance Council

18. There is a range of guidance available on risk management. Frameworks for risk management include the Australian/ New Zealand Standard for Risk Management – ANZ 4360 at www.standards.org.au and COSO Enterprise Risk Management – Integrated Framework, published by the Committee of Sponsoring Organisations of the Treadway Commission at www.coso.org

19. Companies should be aware of their obligations under section 299A of the Corporations Act [Annual directors' report – Additional requirement for listed public companies].

20. https://www.thestreet.com/markets/what-is-risk-14909043

21. Kevin Dowd. Measuring market risk. Second edition. John Wiley & Sons, Ltd

22. https://www.sciencedirect.com/science/article/abs/pii/S1062976917301394

23. Kevin Dowd. Measuring market risk. Second edition. John Wiley & Sons, Ltd

24. Kevin Dowd. Measuring market risk. Second edition. John Wiley & Sons, Ltd

25. Kevin Dowd. Measuring market risk. Second edition. John Wiley & Sons, Ltd

26. Kevin Dowd. Measuring market risk. Second edition. John Wiley & Sons, Ltd

27. Tomasz R. Bielecki and Marek Rutkowski (2002). First edition. Credit Risk: Modelling, Valuation and Hedging. Springer-Verlag Berlin Heidelberg.

28. http://www.iam.fmph.uniba.sk/institute/jurca/qrm/Chapter5.pdf

29. Alexandra Postnova (2012). Does good corporate governance reduce credit risk. Hanken School of Economics.

30. Jun Murangan and Makoto Ohsawa. Measurement of liquidity risk in the context of market risk calculation.

31. Harry H,Panjer. (2006) Operational risk modelling analytics. A john Wiley & Sons, INC,Publication

32. Bank for international settlements. OPE calculation of RWA for operational risk (2017) Basel III publication.

33. Larry B Christensen,R.Burke Johnson, Lisa A.Turner. Research Methods, Design, and Analysis (twelfth edition). Pearson

34. Bank for international settlements: a glossary of terms used in payments and settlement system

35. https://www.freep.com/story/money/cars/chrysler/2015/10/01/uaw-confirms-members-rejected-proposed-fca-contract/73122808/

36. https://www.freep.com/story/money/cars/chrysler/2015/09/21/fca-workers-react-new-contract-prepare-vote/72564860/